

An intersectional approach to technological ageism

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Abstract

Applying an intersectional perspective, this chapter shows how techno-ageism is cut through various other dimensions beyond age, especially for economically disadvantaged older women living in a sheltered housing community. In the chapter, the significance of age to the use of technology, and its encroached techno-imaginaries are investigated using the discussions and situated relational dynamics between older women and a young researcher in a cinema club. It shows how older women use technologies, and traces what different technologies do to age considering established ageing imaginaries, which are not only related to technological practices but also to the concepts of the Third and Fourth age.

Introduction

How is technological ageism produced in relation to the social imaginaries of what it is to be an older adult? This chapter explores this question in the context of Catalonia and a sheltered housing community for older people through an intersectional sensibility. From a macro perspective, Information Communication Technologies (ICTs) have been found to enable several societal outcomes for older people, such as support, social connectedness and quality of life (i.e. Barbosa Neves and Casimiro, 2018; Loe, 2010; Quan-Haase et al., 2017). Meanwhile, ICTs have been found to contribute to inequalities, discrimination and, eventually, produce ageism.

Ageism functions as a key concept to understand how older age is socially produced and the reasons for older people devalued social status. In its production, there are social imaginaries that particularly relate to being old (Baltes and Smith, 2003; Gilleard and Higgs, 2018) and their interest, ability and skills to use technologies (Gilleard et al., 2015). Social imaginaries of ageing are a set of values, norms, institutions, policies and cultures that society produces and apply to old age; including how older people imagine themselves (Köttl et al., 2021). At least two imaginaries are configuring contemporary notions of old age (Laslett, 1994). On the one hand, an optimistic and positive imagery associated with a Third Age is typically enacted in active and healthy ageing ideas. This imaginary supports and advocates for the idea that the s. XXI older people are technogenarians (Joyce and Loe, 2010, 2011; Mort et al., 2013), or in other words, people who are competent in the use of technologies, have full access to them and can even be considered technological "innovators" (Östlund, 2011; Peine et al., 2014). This imaginary disrupts the stereotype of seniors as technological laggards, and by contrast, defines the second imaginary. This is associated with the notion of the Fourth Age, which defines gloomy and unhealthy later life and is usually characterized by institutionalized, dependent and disengaged older people. These notions pervade the imaginaries of the old-old and the young-old access and use of technologies. The old-old are usually considered uninterested in technology, unable to use them due to their frail condition

or their outdated skills. The technogenarians studied before, are often the “economically privileged baby boomers” (i.e. Joyce and Loe, 2010; Neven 2015) that better enact the technological and active ageing imaginaries, typical of the third age (Gilleard and Higgs, 2013).

During recent years gerontechnology research has been interested in uncovering the imaginaries of ageing produced in the design and use of digital technologies (Loe, 2010; López et al., 2010; Neven, 2010), including the forms of ageism these imaginaries naturalize that, as a result, exclude older people from digital technologies (e.g. Joyce & Loe, 2011). Recent literature on the latter aspect follows the premise that there is a corresponding complex relationship between ageism and technology (Cutler, 2005). It spans many interrelated areas regarding technology design (Fernández-Ardèvol and Ivan, 2015; Mannheim et al., 2019), policy (Köttl and Mannheim, 2021), use or not use (Loos et al., 2020), social changes -such as citizenship and digital exclusion (Amaral and Daniel, 2016)-, internalized imaginaries (Ivan and Cutler, 2021; Köttl et al., 2021) and discourses (Loos and Ivan, 2018). This body of work looks for either ways of de-constructing self-ageism (Köttl et al., 2021) or bridging the digital divide by reducing ageism (Köttl and Mannheim, 2021). But it points out the need to consider that age in isolation is not a factor affecting adoption and use (Ivan and Cutler, 2021).

In line with these, we believe there is more to this story that can be unpacked by considering the imaginaries of ageing as intersected by gender and socio-economic conditions. This chapter applies an intersectional sensibility to capture forms of technological ageism and understand how older people situate themselves as technologically able/unable, discursively in talk and in quotidian situated practices. An intersectional experience (Crenshaw, 1989) is inherent to the problems of exclusion and discrimination of older people (Calasanti and Giles, 2018; Calasanti and King, 2015), and acknowledge this is crucial to reveal their subjectivities and social positions in relation to technology. Exploring the intersectional dynamics and emerging differences and inequalities, can shed light on the ‘processes and mechanisms by which subjects mobilize (or choose not to mobilize) particular aspects of their identities in particular circumstances’ (Nash, 2008). At the same time, social imaginaries affect these contextual subjectivities. The potential of intersectional discriminations is entangled with the prevailing social imaginaries and may enact identification or resistance (Staunæs and Søndergaard, 2011). Hence, exploring the experience of older people from an intersectional perspective is fundamental to understanding the ways in which techno-ageism, as a form of exclusion by age, is done. So far, research on older people's technology access and use has barely started to study this taking an intersectional approach (for an exception, see Tsatsou, 2021), although it has recognised the multifaceted character of older people's technological engagements (e.g. Katz and Gonzalez, 2016; Mubarak, 2015; Tsatsou, 2011).

To fill that gap, we explore how older peoples’ subjectivities are produced in their interactions with technologies and others, and illustrate key processes in the current enactment of the ageing techno-imaginaries. In doing so, we consider both, the variety of dimensions that produce discriminations in older people’s technological engagements and the social imaginaries of old age. Meanwhile, this chapter also brings to the debate about techno-ageism the idea that older people are not only the beneficiaries or dupes of technologies in

relation to age (differentiating between the ‘old-old’ and the ‘young-old’), instead, we need to look at the crossroads of the imaginaries of old age, and explore how factors such as low-income, gender and life trajectories relate to their technological engagements (Kania-Lundholm, 2023; Vincent, 2023). Older people do not only enact imaginaries of old age but of gender and social position when speaking about their technological uses and non-uses and the increasing digitalization of their daily life.

The significance of age to the use of technology and the encroached techno-imaginaries, are explored using the discussions and situated relational dynamics between older women and a young researcher in a cinema club. It took place in a sheltered housing accommodation for older people where all the women were living. This cinema club was part of a longer qualitative study within an international research project entitled Being Connected at Home (BConnect@Home)¹, that investigated the fundamental changes in the contemporary experience of later life at the intersection of digital infrastructures, place and the experience of “being connected”. Specifically, we studied the media ecologies of older people for social connection in three housing arrangements for older people in Barcelona: people living independently at home, in sheltered housing for older people (which includes services but not care) and in nursing homes. The cinema club was part of the fieldwork in the second housing arrangement.

The tendency of previous approaches to understanding ageism is rooted in uncovering patterns in social interactions and routines, and attempts to reveal the self as routinized, lodged, committed, and stabilized or destabilized. Here, however, we put the analytic focus as always on becoming, material, emerging, and changing, even contradictory at some points. We are interested in underlining the tensions around their (limited or not) exercise of social agency, in which older women may get trapped because of a profoundly ageist society, while observing how techno-ageism intersects with other factors. We conceptualize the (old) woman as emergent in relational situations, with non-human forces equally at play in constituting their becomings. Following from this and situating technologies as part of this conceptual framework, technology appears as another element in people’s relations. Hence, our focus is not strictly on technology per se, but on being old and participants’ unique discrimination and power experiences, when confronted with technologies.

This chapter considers technology as another element through which ageism and age are done and undone, because we view technology as an entangled element in people’s broader social relationships. What interests us is how older and economically disadvantaged women perform and enact age through technological use. From the exploration of woman's intersectional subjectivities, we discuss technological ageism to make visible that, similarly to the way that age imaginaries are defined by constructs of age, gender and class, technological ageism affects older people in different ways depending on their gender and class and not only because of being "old".

In what follows, first, the research strategy and process are presented. Second, the chapter explores how the older women living in a sheltered housing², from now called the Valleys, are and how they relate to technology and other people. Then, it moves on to analyse not only how older women's subjectivities are played out in their narratives and experiences of

technological use, but also how these narratives make sense in life trajectories profoundly intersected by gender and social status. We bring together the discussion about the need to consider the factors that intersect with age in the study of technologies and integrate the study of intersectional ageism in the study of ageing (Levy and Macdonald, 2016) with technologies. The final section concludes with a summary of the main findings.

The cinema club as a research strategy

This chapter is mainly a reflection on the results and interactions with 14 older women in a cinema club. It was designed as an initial strategy to facilitate access to informants within the study about digital social connectedness in sheltered housing, part of the larger BConnect@Home project. The cinema club took place in the Valleys, a public sheltered housing facility for older people of the *Barcelona* City Council Housing Agency. They are a group of 76 self-contained flats with some services: a warden (who helps with multiple chores), social alarm and cleaning, as well as communal areas (common room and roof terrace) and social activities organized by the residents or the manager. To access The Valleys, residents must be at least 65 years old, not having long-term care needs (being independent) and have a low annual income. Most residents are women (73% of the 84 people living in the community) because they become more vulnerable to economic hardship in later life (Mirowsky and Ross, 1999). In fact, all the potential participants were women who had to move because their former houses were ill-adapted to their needs, and they were suffering from long-standing or recent economic problems due to the 2008 economic crisis and cuts in other social benefits.

We basically came up with the idea of watching together and discussing a TV series to motivate conversations about digital technologies in their daily life. Our intention was to attract all the women who regularly participate in activities at the Valleys, including the oldest women living in the community and the non-users of digital technologies. For this reason, the cinema club was presented to the Valleys' community as another of the regular activities, that were taking place in the common area. It was framed as an opportunity to discuss social relationships in later life.

Pragmatically, the research started by negotiating with the manager access and announcing the cinema club to all the residents (Figure 1). It took place over four consecutive weeks (from the 7th to the 28th of November 2018) plus a feedback session (5th of December 2018). Fourteen women attended the cinema club, and 10 of them attended every session. Each Wednesday afternoon for a month, we watched together one episode of the American TV show *Grace and Frankie*, followed by a discussion about particular, quotidian scenes that were displayed in the episode, especially around gender and technology. Each session had the same structure, first, we allowed some time for chit-chat and catching up, then we watched the episode, followed by a conversation. They lasted around 2 hours. They were scheduled at 17.30, and we provided a snack of juices and biscuits to create a relaxed and informal environment to watch the show. We also had a final session on the 5th of December to openly discuss the imaginaries about age, tech, and gender with the participants. Only the two last sessions were audio-recorded to avoid the potential discomfort that being recorded can cause (Nordstrom, 2015). Andrea, the researcher in the field, took extended notes from

each session, and the recorded sessions were transcribed. With the participants, the researcher also drew conceptual maps (i.e. Figure 3) during the third session. The maps gave a holistic idea of what they understand as technology, where and when (space) they use those technologies, for what and with whom. She didn't identify all participants on every occasion, as we prioritized the natural flow of the conversation to the detriment of a detailed register of the speaker, since the objective was to reproduce a natural conversational situation. Indeed, the participants that are identified (with pseudonyms) in this chapter continued participating in the next steps of the research project, and because of that we have more information about them. This strategy also permitted side one to one conversations, with participants and the concierge, other residents, and the centre manager, facilitating a holistic approach that spans beyond the conversations held during the cinema club.



Figure 1. Poster designed to announce the cinema club

The participants voluntarily attended the sessions of the cinema club they wished. They were informed of the aims of the project, how the data would be collected and managed and by whom verbally and via an information sheet. We obtained verbal consent to participate. Their participation was confidential, and the project assured anonymity. We use pseudonyms for the participants and the sheltered accommodation community. As part of the ethical treatment, we presented the initial results to them during the last session so that they could have a say in our interpretations. The research project received ethical approval of the corresponding ethics committee³.

We chose this TV series because *Grace and Frankie* is about the everyday life experiences of two women in their seventies and their ex-husbands, including issues about (in)dependency, health, body beauty, active ageing, family relationships, gender, and sexuality. This TV show attempts to defy older women's representations in media (Lemza, 2019.; Pereira and Gutiérrez San Miguel, 2019), and although technology appears, it is not the central focus. Through the two female characters, it puts into the fore innovative gender and age issues in mainstream media, and it was a good trigger to open the conversations about ageing with technology. The socio-economic backgrounds of the two female characters of the series and the participants of the cinema club were very different, and that fact also generated some comments.

Our technology definition was rather loose, and initially we talked about any kind of technology that they use in their everyday life: including washing machines, microwaves, telephone landlines, that were later mixed with smartphones, tablets, social media technologies, laptops, and robots. During the discussions, it was challenging to bring the focus of the conversations to technology. The participants preferred to talk about relationships and engage in quotidian chit-chat and joking. Hence, we needed to reflect carefully about how to bring technology into the conversations (López-Gómez, 2019). It was not implicitly introduced in the early discussions. The first two discussions were unstructured and loose, while the last two were slightly more focused on technology. We started to talk about social connectedness and relationships and slowly, week after week, we gently introduced the topic of technology.



Figure 2. Common room setup.

Not pointing at technology in the first place aimed to circumvent potential drawbacks that the reproduction of certain old age and technological imaginaries could imply for our study. Firstly, introducing the research project in the Valleys as technological would have put many participants off because the residents were, according to the manager of the Valleys, “not very technological”. Given that new technology imaginaries are gendered and predominantly man-oriented (Cockburn and Ormrod, 1993) -which especially applies to people of participant's generation (born between the 1930s and 50s)-, the risk of attracting only a few men in a community mostly inhabited by women would have been too high. In fact, the room where the cinema club finally took place was intended to be the computer room. But as the “residents weren't very interested” in technology, the manager decided to remove the computers and refurbish the room to stimulate social activities that were more appealing for them. Since then, a group of women who have been living in the community since it was founded meet up in the room regularly to carry on a series of activities (such as yoga, mandalas' colouring, memory classes, singing, and so on).

Secondly, we didn't want to enter the field setting the idea that the project was to study fancy digital technologies that they probably don't know, are not interested in or cannot afford. That could have reproduced a common selection bias in technology studies that favours samples of middle class and well-educated people (Rosales and Fernández-Ardèvol, 2020 and Vincent, 2023). With this strategy, we sought to attract to the cinema club users of all types of technology as well as non-users (not only the early adopters or most tech-savvy).

Thirdly, we sought to avoid starting the fieldwork by positioning them (and ourselves) in the dichotomic imaginary about technology expertise that assumes that the youngest generations (in our case the researcher in the field) hold the technological know-how and the authority to determine how to use them (Beneito-Montagut, et al. in press).

How are the Valleys' women?

The group of fourteen women who participated in the cinema club form a cohesive group within the community. They currently have a low pension income (as per requirement to access the sheltered accommodation) and are over 65. Among them, the chronological age range is varied. The youngest are in their 70s and the oldest are over 90 years old –there are three participants aged 90, 94 and 96. None of them have a higher education degree, although they all have basic education. Half of them worked in low-skilled jobs (a saleswoman and a cleaner), while others worked in medium-skilled jobs (i.e. secretary, marketing sales and trainer, shop attendant, radio operator). Most of them were married and had children, whilst nearly everyone currently lives alone either because they are separated or, in most cases, widows. There are only two of them who live together with another older woman, and that is because they are sisters and both single. Their experiences with technologies are varied and diverse, too. They all acknowledge having a telecare system, but only one of them uses it outside the flat because “we all think about us as young”. Some also intensively use smartphones, “she takes it even to the toilet”, but the technologically engaged group among them is rather small.

In the remainder of the chapter, we show both, that the women living in the Valleys are technologized and use a broad array of technologies -smart or not, new or old, digital or analogue- to remain meaningfully connected. And how their subjectivities as old women are crossed by various entangled factors such as gender, life trajectory and their roles as woman. While remaining attentive to the techno-imaginaries of old people, firstly, we explore how age is done with technologies and the co-shaping of women's subjectivities. Secondly, we do the same in relation to gender and, to other factors, such as professional career, that emerged as relevant for their subjectivities. Thirdly, we discuss how the construction of age is intersected by other factors for the Valleys' women and what kind of techno-ageism is produced.

The younger, the “techier”

“When I brought up the topic of technology, I seemed to perceive a certain defensive position, like the young woman is already judging that we [the older women] don't use anything. And when I positioned myself as 'low-tech, even reluctant', they relaxed. That was clear with the topic of WhatsApp, they all said that they all used it from the beginning as if to say what do you think?, to which I replied: oh yeah? From the beginning? Well, I resisted a lot, I don't like being so connected. I don't have an analogue mobile, but almost. Although, the group of about 5 older ones

later told me that they did not use it before nor now" (Andrea's field notes, 14-11-2018)

In this quote, the imaginary of the old techno user is ingrained into participants' subjectivities, and it is present in the relational dynamics with Andrea since the beginning. In the first instance, non-technological participants did not openly reveal that they did not use a very popular app in Catalonia (Rosales and Fernández-Ardèvol, 2016). They only disclosed that when Andrea positioned herself as low-tech and not interested in technologies. Yet, for others, presenting themselves as technologically engaged and skilled in their interactions with a younger and educated woman – the researcher – seemed to build up on their subjectivities as old but “not that old” as we will see below. Consequently, a few older women in the Valleys positioned themselves as technologized and the rest did as non-technologized.

QUE	DONDE	COMO	QUIEN
LAVADORA SECADORA NEVERA FIZO	CASA PARTICULAR COMPARTIDA (ASA (-)) cada 2 dias	PLANCHA SEMANAL CADA 2 SEMANAS, 3 SEMANAS 2 SEMANAS	PROPIA o NO PROPIA (solo, las que tienen más)
MOVIL	'Todo el día' 'Cualquier S'ha' 'aseo' 'valles' 'bus' WC, ducha 'per' a la casa/ASA	FCD habitar calle v en el churros / Sirve para después v no poder llevar en casa	FAMILIA, TRAMITES EMPRESAS (sacar la basura) Lo cubre me
WHATSAPP	Todo el día Noche de	Nada. Tuentris, Videos, music Buenos noches, días Para relajación	Hijos, hermanas, amigas, hermanas o amigas, bisabuelas. Cada día o llamar + hermano ->
TELEFONIA		No les llaman para reuniones solo reuniones privadas	Breve mi hija Sabes sacar el foto
YOUTUBE			
AMAZON, WITCH			

Figure 3. Ecology of the technologies used by the women participating in the cinema club

In the group, the younger ones are the technological ones. They try everything that falls in their hands, engage in social media platforms, and are keen and proud to do it (figure 3). On the one side, there is a technologized profile, illustrated by two women in the group (Lana 76 and Pilu 73 years old). They feel confident and comfortable with digital technologies and are in charge of the media communication channels (i.e. WhatsApp group), common room set up and organize the Valleys' activities. Sometimes they even teach the other residents. They are considered the technological experts among the group. Moreover, they are the youngest among them. They materialize with their engagements with technology the young techno imaginary and engage technologies as a youthfulness treat. These two and a few more of them had a professional career outside domestic work. Pilu still works as a trainer in marketing. Lana teaches memory and singing in the Valleys and constantly uses YouTube and searches information online. On the other side, there is a group formed by the old-old (Sarita is 89 years old and her sister Mamen 96, Angustias is 90 and Maria 94 years old). They don't use digital technologies and often had not-skilled or low-skilled jobs previously to retirement. They didn't participate much during the sessions, not because they didn't turn up, on the contrary they came to nearly all the sessions, it was just because they let the younger lead the discussions. Likewise, they mainly use the landline and the mobile phones for making calls.

Another stance that illustrates these tensions to resist or embrace the imaginaries that relates technology to being young (or vice versa), happened when one of those technologically engaged women, Pilu, took the role of technological assistant during the cinema club. Pilu took the lead and helped Andrea to set up the computer and the projector, and in Andrea's words, "she feels deceived when she is not needed". She was one of the youngest of the group, and the other women let Pilu take control and considered her the tech-expert. She was the one who helped every other woman in the group when they had technology issues. When they were directly asked who provides tech-support, the response was unanimous "Pilu or the warden".

These two models of technological engagement are articulated around the old-young, and the old-old, and have particular meanings for age. These doings were curiously observed in the group organization of the common room and their embodied positions in the space as well. Pilu was in charge of organizing a circle of chairs when we shifted from watching the series to talking about it. They sat in a circle arranged by age: the young ones on the left and the older ones on the right and closer to Andrea. The kind of chair and its position should help the oldest to access and participate in the discussions. The younger old women in the group regulated and managed both the access to technology and interactions with others in the physical space too.

But the confirmation of the presence of this youth imaginary arose with the women's pride expressions for an unexpected turn during the cinema club. Lana, another of the youngest, taught Andrea how to use and update the WhatsApp status:

"There is some confusion because I don't understand what they mean because, in fact, I didn't know that there was the option of posting photos and documents in your WhatsApp status. Seeing that I didn't understand, she offered to explain it to me if I had my smartphone with me. I took out my phone, I walked over, and she showed it to me. I showed the real surprise I experienced. They all laughed and some even clapped at the fact that it was the old woman who taught me" (Andrea's field notes 21-11-2018)

The laughs and the claps that the situation provoked are expressions of pride and praise over an old woman teaching technology to a young woman. As if this was something completely unforeseen and unimaginable, contrary indeed, to the expectations produced by normalized techno-imaginaries around ageing.

An interesting issue related to their subjectivities as technologized older adults relates to the meanings embedded in particular technologies, and how these meanings relate to the techno-imaginaries explored in this chapter. In one of the participants words:

Woman 3: "We, the ones who participate vs. the old people who stay all afternoon in front of the TV, doing nothing, or waiting for their children, without leading their own lives and socialising".

Digital technologies are seen as tools to do stuff, keep up to date, be active and continue with contemporary life. They counteract more passive technologies, mainly television. The Valleys' women have the idea that television "consumes you, locks you up at home, and keeps you passive, while going down to socialize forces you to dress up and keep you connected to the world". Television appears as a technology that keeps them connected to the broader society but loses connectedness potential when opposed to more active technologies. Thus, television is associated with a technology for old, passive people, and digital technologies (smartphones, tablets, social media, and so on) are related to youthfulness and active ideas.

Thus, being active and passive is very much related to specific technological uses, being digital or just a TV consumer, which defines the participants as young-old or old-old within the community. But as shown by the participants, it is not only a matter of technological use but on the social activities these uses enable or disable. For them, engaging in the social activities organized in the community means being active. As it is getting out of the flat, and spending time with other people in the common areas, which is possible because some of them are digitally active and literate and involve those who are less so. However, as we will see, performing young-old and old-old imaginaries of later life through technological use (active/passive ascriptions to digital technology) is very much intersected by gendered life trajectories (such as occupation before retirement) that are also marked by socio-economic factors.

The Valleys women's technological engagements

Pilu: I own a computer.

Andrea: What do you do?

Pilu: I still have a mini job. I am a sales trainer, one day per week I meet the sales team to push the sales up. [...] I also play Rummy, silly stuff, and browse around what other people write to me. But the most stuff I used to do 10 years ago, and I really liked to do, such as using chats, I don't like it anymore.

Woman 1: The same happens to me [referring to not engaging in chat rooms].

Pilu: I am interested in medical topics, for instance, when I listen to somebody talking about brain ischaemia, I am interested in logging in and learning about it. If I listen to something on TV, drugs that come out, I type that on the computer.

The group of old women that engage with technology, as said before, are those who had a past linked to the labour world. They show a greater interest in new technologies, not only to communicate with their close networks, but as well as a way of being connected with the current world. They followed the news, both through TV and through social media. Likewise, they use the internet to search about diverse topics of their interest. For example, Lana, who is divorced and lives alone, was a radio broadcaster, and she relishes being up-to-date and informed of current affairs and politics. Her technological engagements, as we show in the following quotes, support Lana's continued performance as a professional woman even after

retirement. She uses technological devices, computer and smartphone, and many applications (i.e. Twitter, Facebook, Skype, YouTube, Google, Amazon Prime, DAZN and so on).

Lana: “But I got married, so they wouldn’t let me continue working on the radio station. I didn’t want to get married. (...) I mean... I had... I have..., having a résumé like the one I have, my last years of pension contributions were peanuts. (...) Online, I like see what’s going on, what others have or haven’t sent to me. Gossip (...) I log in on Facebook, Twitter, and I alternate one, two, three (...) and I am getting pieces of news.”

The technological engagements of these women, who reject the imaginary of older users as unskilled and uninterested, are diverse and related to their professional careers. Moreover, gender is enacted through the emancipation process that was connected to working outside the home, that somehow is made visible in their relationship with digital technologies. However, on the other side, for many other participants, when asked directly about technologies, the first that they mention are domestic technologies (iron, washing machine, dryer, and so on) (figure 3). Similarly, they mentioned the landline phone before talking about mobile phones (as further discussed somewhere else López-Gómez et al., 2021). While talking broadly about technologies it transpired that they use connectedness technologies as part of their normalized roles as caring women (in this occasion as wives, friends, mothers, and grandmothers). This technology role as a caring tool applies to digital technologies and non-digital technologies. For example, they send memes to relatives because it is understood as emotional work, similarly as they wash their children's clothes. It is a feminized way of caring.

An example of the emotional work that came up in the discussions, is congratulating relatives and friends on their Birthdays and sending reminders to the rest of the network (i.e. mostly family) of Birthdays and other relevant dates. The participants explained how they perform this role, incorporating technological tools:

Woman 2: What I do is at the beginning of the year, I write down the Birthdays dates on the mobile phone calendar. I write them down by heart, of my children, my siblings, my daughter-in-law...

Woman 3: Me too

Woman 5: Me too

Woman 1: I used to tell my children that it was someone else's Birthday, not these days. Now they have alerts. Before it was me who let them know them.

Woman 3: I send a WhatsApp to the whole family first thing in the morning (to notify of a Birthday)

The understanding of both domestic and digital technologies as tools to care about and for others (Cockburn, 1997; Stark and Larsson, 2019; Gibson et al., 2021) (also for self-care, but we do not discuss this because it is not the focus of this chapter) translates to the conceptualization of gendered mediated emotional work. Moreover, we observed that the kind of relationships that each woman sustained with particular others also influenced the

technologies that are used (or not) to keep in touch with them. Five out of the fourteen participants recognized that they have never used digital technologies. They only use mobile phones or landlines to keep in touch with their kin and friends, while relationships with the other women in the community are mainly sustained face-to-face. The kind of relationships that they sustain and the already set means of communication don't necessitate smartphones or digital technologies. As seen, except those five, the other participants use digital technologies to some extent. On the other hand, the most technologized participants use video conferencing, and many other social media platforms, because their children and grandchildren are living abroad (e.g. Baldassar et al. 2016; Lopez-Gomez, et al. 2021). They use WhatsApp with kin too, as well as with the other women in the community and more broadly. There are three of them who own and regularly use laptops and computers as well. Keeping in touch and caring about others, which entails sustaining the social bonds (family, affection, care, and womanhood), is an emotional work normalized as their duty as women. In any case, many of them, especially those with children, felt that they had to be "alert" to the landlines and mobile phones "just in case ...", and be always on call. Pragmatically, it means carrying the phone with them all the time, "she even goes to the toilet with the phone"; keeping the ringtone on, even in places and social situations where they are supposed to be switched off, such as a GP appointment, during the night, and so on. This "always alert" culture is interpreted by the women as a duty related to their gendered role within the family and becomes part of their subjectivity. But others, the less technologized, don't feel the need to do mediated emotional work or be always on.

Angustias: "Why do I need to contact my daughter if I know that she is coming to visit me later? Why do I need to say something on the WhatsApp channel if we are meeting in the common room in the late afternoon?"

It is not by chance, that the ones who presented themselves unequivocally as technologized are the same ones who were blunter in their feminist positions (as emancipated, working and independent women) and the youngest in the community. However, the distinction between those who did mediated-care work and those who didn't, is more ambiguous and complex than whether they are technology engaged or not. What is clear is that their role as caring woman or not pervades their technological engagements.

Another way in which we were able to observe their subjectivities as women in relation to technology was around 'female chatter' in the Valleys. As one of the participants stated, "here, we are over the moon to talk our heads off". And another one said:

Woman 4: TV and down here [community common room] "radio macuto", that's our way of staying informed.

Woman 1: (...) I am not nosy; we gather every afternoon here [common room] and talk about everything. Someone comes and that's enough to be aware of everything; and to have people with whom to talk, in this environment we have plenty of social contact.

The common room, a physical space, and the WhatsApp channel became spaces for socialization and the reference to the existence of "radio macuto" which alludes to a Spanish phrase referring to the source of rumours and gossip, reinforces this idea.

"Radio macuto" in this context is a female hybrid process between the physical space of the common room and the online space of WhatsApp. The common space is feminized as well. It is a space of female socialization and the ways of relating in them have been stigmatized and defined contemptuously as "female chatter" (Juliano, 1992) which is reviled as a form of superficial, stupid, or even evil communication. This is perceptible when we compare The Valleys' women socialization with the men's one. Men had their own relational spaces and online communication channels in the community and didn't participate in women's regular encounters nor in the WhatsApp groups. Instead, they relate in "masculine" spaces and activities. When they use the common room, they do so to watch football and no women would turn up to watch the games with them, the same way that no man would turn up to women's daily meetups.

Therefore, women's life trajectories, professional careers before retirement and caring roles are related with their technological engagements, which in turn are entangled with their diverse roles as women. Hence, the relationship ageing-technology, and its consequent social imaginaries, is not the only factor that co-shapes older people technology uses, is also intersected by diverse ways of being and old woman. Neither being old nor being a woman can be considered unidimensional factors, they are intersected with each other and with, particularly in this case, life trajectories and their gendered roles as, for instance, emancipated (or not) women.

Discussion

We have seen that older women's technology engagements are complex, multifaceted and entail different ways of performing their subjectivities. Their technological engagements do not only enact ageing imaginaries but are defined by gendered life trajectories and roles in society too.

For the Valleys' woman, using digital technologies entails attributes related with youthfulness and being active, and this enacts a rejuvenated way of being connected to the broader contemporary society. Those who present themselves as most "technological" and interested in digital technology are those who intensively use smartphones and social media. They are in turn the youngest, considering the chronological age, but they also produce their subjectivities through their especial technological engagements. Participation in social media and using digital technologies for these women is associated with being more active, up to date with the contemporary world and, eventually because of that, young. On the contrary, not using digital technologies or watching television is associated with passivity and being old-old. Thus, certain technologies and acts, like watching TV "excessively", are associated with being old and add to the production of the imaginary about what it is to be old. The participants associate the digital technologies, and the activity related to managing them, with an active life. 'Active ageing' ideas are related to engagement in a broad range of activities (Walker, 2015), as many of the participants do. This claim for no passivity, that we have seen applies to technological engagements as well, has been problematized for endorsing and perpetuating the values of youthfulness (Grenier, 2012) and therefore adding to a normalized

idea of ageing (Schmidt and Yang, 2020; Williams et al., 2012). To sum up, we suggest that the social imaginary of being young and active is not only produced by the ability to do things, but also by the ability to engage with particular technologies and not others. It could be said that for these women using new technologies rejuvenates in two senses, keeps them active and gives them a young appearance, similarly to what contemporary technologies of the body do (Marshall 2010; Brooks 2010).

Besides, our analysis shows that the youthfulness associated with these technological uses, which characterises Lana and Pilu practices, has much to do with their life trajectories as women struggling to develop a professional career and emancipate from traditional women roles and social positions (i.e. subjugation to men). Using and being interested in digital technologies takes on an added value for those women who associate their subjectivity with ideas that reject the traditional roles of femininity (home, care, domestic and manual work), dominant for the generation of post-civil war Catalan women. Due to this, the use and interest in technologies enacts an imaginary of ageing that is very much associated with a cultural shift in their generation. Breaking with the traditional values of their parents and resisting traditional gendered roles, marked their life trajectories and differentiated them in terms of age imaginaries. In the 70s, these forms of resistance characterised the emergence of the youth as a distinguished cultural group, being later what typified the generational culture of baby boomers and defined old age according to the imaginary of the Third Age (Gilleard & Higgs, 2008). Thus, the mode in which older women at the Valleys engage with technology and present themselves as technological users could not only be interpreted based on

the ageing imaginaries of old-young and old-old but also paying more attention to the intersection with gender imaginaries that are profoundly manifest in their life trajectories. These two imaginaries of age are, moreover, a source of ageism themselves, because older women in their technological engagements are constantly confronted with youthfulness as the aspiration and norm. Their digital practices, in turn, reify the ageing and gender imaginaries, and technology becomes a tool for the production of the Third Age (young-old), which is disregarded for the Fourth Age (old-old).

Finally, we found additional intersections between age and gender. Most of the women in the Valleys find the availability of digital technologies useful to perform renewed care and emotional roles. As in previous studies, women value connectedness technologies and phones because social connectedness is important for them (Loe, 2010). The care connections with their most intimate relationships are related to their social position as caregivers, and this work is often invisible and even more so when it is technologically mediated. As seen, this care work is not limited to domestic tasks and care for others, but, as De Leonardo (1987) already stated, has a third dimension: kin work or caring about. The mediated forms of care that we have seen are invisible not only in everyday life but in technology studies too (with few exceptions Beneito-Montagut et al. 2021; Baldassar, 2016). Sometimes this care work is even considered unnecessary or devalued –i.e. substituted by determined technological affordances such as Birthdays alerts. This devaluation of the care work that comes with keeping in touch seems more unnecessary when is made by older women. Yet, it is devalued within the Valley's women who also appreciate and value more the work linked to the technological expertise, skills and ability to control technologies than care work. Similarly, to the association of TV to the old-old imaginary, in this case, the non-digital technologies for

caring about (i.e. not-smart phones, washing machines and landlines) are associated with being old, whilst technological expertise and skills are rejuvenating.

Moreover, to the devaluation of the mediated care work, we can add the devaluation of gendered ways of relatedness. The common room of the community together with the women WhatsApp group are feminised spaces. Both support gendered ways of doing relationships among the participants that flow from the physical space of the common room to the WhatsApp group. This kind of relationality is associated with ‘female chatter’ (Juliano, 1992) (i.e. gossip, sharing photos and commenting on the WhatsApp women’s group) and is made invisible and discredited. Thus, we believe that in the techno-imaginaries about old age prevails the appreciation of higher levels of digital literacy and ability to do digital things, which becomes the norm of how an old technogenarian should be. This is problematic and produce additional sources of ageism because normative women roles and social positions are undervalued and suppose another discrimination for not engaging in masculine ways of using technologies.

Situating the results of this research in the discussion about techno-ageism, this chapter illustrates how the age dimension never functions alone, instead is intersected by several dimensions.

Conclusions

To answer the questions about how technological ageism is produced, in this chapter, we turned up to the social imaginaries of ageing with ICTs that are entangled in women's technological engagement. The analysis of the cinema club field notes, transcripts, and maps has illustrated that the configuration of the socio-technical imaginaries, besides entailing a certain set of distinctions around ageing with technologies, which are related to Third and Fourth Age, are intersected with ideas about women’s social positions.

The research strategy assumed that the main interest of the residents was in social relationships and daily life rather than technology, and that technology would appear as relevant only if it became a support or obstacle to establishing social relationships. Whether due to the effect of the research strategy or not, the fact is that it was largely so. Nevertheless, the relational dynamics of the cinema club also showed to what extent our plan reproduced or dismissed in the participants certain imaginaries associated with the use of technology. We were surprised that there were indeed a few highly technological women who quickly took up a leadership position, even displacing the ‘young’ researcher. We expected that technology would be a matter linked to relationships and above all to care and emotional work. And although this was noticed to some extent, we found ourselves confronted with our own imaginaries by Pilu and Lana’s technological practices. They used technology not as instruments for just gendered work, but it was rather a matter of interest in its own shake, a reason for exploration, growth and learning, and related to their social position as emancipated women. Technology became a way of doing feminism.

Based on this work, we advocate a more intersectional view in the research on technological ageism. Regarding intersectionality in technological ageism, we have shown that age is not enough to understand how the older women co-constructed their subjectivities as able/unable in relation to technologies. Looking at age as an isolated factor among this group would not give a complete picture of what’s going on and how this group of low-income women relate

to technology. Indeed, their gendered social positions and life trajectories are very much related to how they use or not-use technologies. Thus, if we want to understand the exclusions and discriminations related to technology use by older people, we need to look at other factors beyond age. As we've seen, discriminations come from other dimensions too, that are related with being a low-income woman with a particular life trajectory. The diverse experiences are very visible regarding gender subjectivities and life trajectory. For the Valleys' women, the ageism as a set of norms and values that are very present, is produced for being old, a woman that prefers determined feminized uses of technology over to others, or because they do feminism by using technology "like a man". Being a woman and performing gender is not homogenous, and different social positions relate to different ways of using or not using technologies.

Hence, techno-ageism is cut through various other dimensions that change over time with life trajectories. These contingent factors need to be examined to understand techno-ageism in depth. The lack of inclusion of these factors may lead to an excessive optimistic and positive imagery associated with the Third-age, which is usually enacted in active and healthy ageing ideas and also in the technogenarian concept. Eventually, the excessive optimism of the Third-age and technogenarian is a source of ageism. This imaginary disrupts the stereotype of seniors as technological laggards in our study, and by contrast, defines the second imaginary that is associated with the notion of the Fourth Age, framed by deficiencies and technological disableness. This notion pervades in the imaginary about the old-old accessing and using of technologies. We have shown that this can be problematized as well and conceptualised as a theoretical form of ageism because the old-old are automatically considered uninterested in technology, unable to use them due to their frail condition or their outdated skills, but there are additional intersectional factors that explain their technological (dis)engagements.

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² The definition of sheltered housing or accommodation that we use is “a type of ‘housing with support’, which older people can rent” (Age UK, 2022) (<https://www.ageuk.org.uk/information-advice/care/housing-options/sheltered-housing/>; <https://www.independentage.org/get-advice/your-home-and-housing/types-of-housing/sheltered-housing/>; last accessed 22nd August, 22).

³ Universitat Oberta de Catalunya (UOC) Ethics Committee.